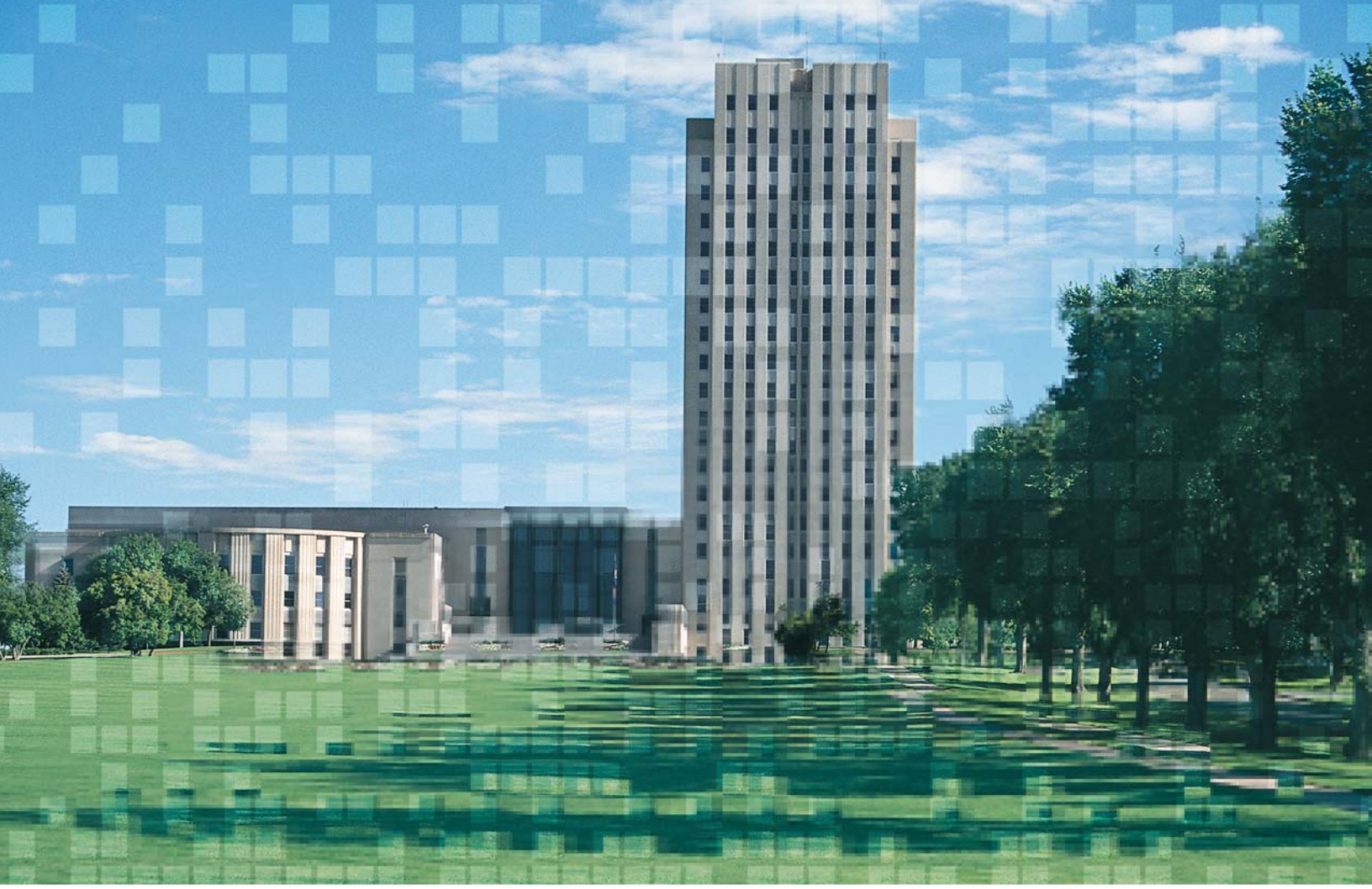


GOVERNMENT

Government Overview

By Curtis Wolfe

Growth and innovation are essential for the continued vitality of our state. I'm proud to say that the people of North Dakota have the vision to create and implement technologies that make our state a dynamic place to live and work. Our state works extremely hard to stay ahead of technological advancements, and we've become a leader in our nation, blazing the way for other states to follow. The six goals outlined on the following pages identify a number of areas where we will be partnering across government boundaries to implement innovative solutions.

Through a culture of cooperation we have implemented a statewide network that connects county, city and state government offices, as well as K-12 and higher education campuses in 192 communities. This kind of cooperation demonstrates our unique ability to achieve important goals while at the same time maximizing the impact of scarce investment dollars. In the current biennium, we are expanding the video conferencing capabilities of the network — eventually putting 80 percent of the population within 30 minutes of a video site.

This biennium we have also begun a project to replace the state's aging financial, human resource and student administration systems. Once again, state agencies and higher education campuses are working together to implement a system that will meet everyone's needs. While the investment over the next several years will be substantial, the "enterprise" approach will be less costly than a piece-meal approach whereby the many existing agency systems would be upgraded and patched together over time. This project, called ConnectND, is not just a software upgrade — it will change the way we do business by making government more efficient and providing greater accountability.

Sharing criminal justice information, posting geographic information and mapping data, and building an e-government portal are examples of the important projects outlined in the plan. In addition, we will be working to improve the management of technology and evaluating the impact of technology on policy decisions. Over the past three biennia we have implemented strategies to improve technology planning and project management. Through a new process called Enterprise Architecture, we will involve state agencies in developing technology standards and defining future technology solutions for state government.

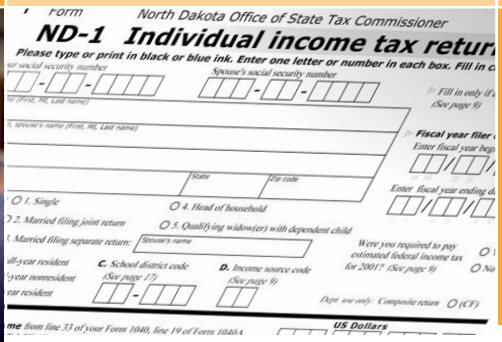
North Dakota has a number of challenges including distance barriers and declining population. Technology can play an important role in addressing these obstacles by providing cost-effective, innovative solutions. If we are to attract new businesses and citizens to the state, if we are to keep young people from leaving, we must help them to understand that North Dakota is a high-tech, digitally equipped state. Many times, the first impression of North Dakota is generated through a government service. Visitors browse the web for tourist information or hunting licenses. Businesses seek to register or to locate economic development information. Investing in up-to-date technology and offering electronic government services are critical to establishing North Dakota's image as a great place to live and work.

Please accept this as a challenge to each and every person living in our state: Let's explore future possibilities and continue to deploy modern technology to showcase North Dakota as a high-tech state.

Curtis Wolfe, Chief Information Officer
Information Technology Department

GOAL ONE

Offer multiple service methods to meet increasing customer expectations and overcome barriers of geography.



STRATEGIES

- Provide a customer-friendly view of electronic government services.
- Continue to build e-government applications to provide anytime, anywhere services.
- Coordinate statewide help desk services and explore the expansion to 24-hour-a-day, 7-day-a-week coverage based on demand.

How citizens interact with government is changing rapidly as technological advances offer new possibilities for providing service. While some people will continue to feel more comfortable filing traditional paper forms, others are demanding online access to information and services from their homes and businesses. *A survey by the Social Science Research Institute in June of 2002 showed that an astounding 70 percent of citizens and 80 percent of businesses in North Dakota use the Internet.* The vast majority of these users said that having government services online is more convenient and allows better access to information. The state has already developed 37 online applications — like the purchase of fishing licenses. Many more government applications need to be developed until eventually all forms and services are online.

In addition to having government services online, they also need to be easy to find. Citizens and businesses should not be frustrated trying to navigate a maze of state agencies and programs. The DiscoverND web site provides a one-stop approach to government services and has advanced search capabilities to get customer where they need to be. Maintaining this portal with current, fresh information will be a priority. Not only does it improve services to our citizens, but it is also a marketing tool to attract new businesses and visitors to the state.

As more and more government services go online, expectations also increase. Citizens may assume that online means always available, 24 hours a day, 7 days a week. If they need help filling out a form or accessing an application, the advantage of the online convenience is diminished if support is only available from 8:00 a.m. to 5:00 p.m. As the state moves to deploy more critical functions like law enforcement systems, it will be imperative that we examine the need for around-the-clock support. During the next biennium, as major initiatives like ConnectND and the Criminal Justice Information Sharing project are deployed, we will need to determine the requirements and costs associated with expanding support options and establish a course of action.

Jim logged on to the Internet at 4:00 a.m. and browsed for a license at discovernd.com/gnf. At 4:45 a.m. he was hooking the big one.

GOAL TWO

Maintain core business processes to reduce the risk of potential disruption to critical services.

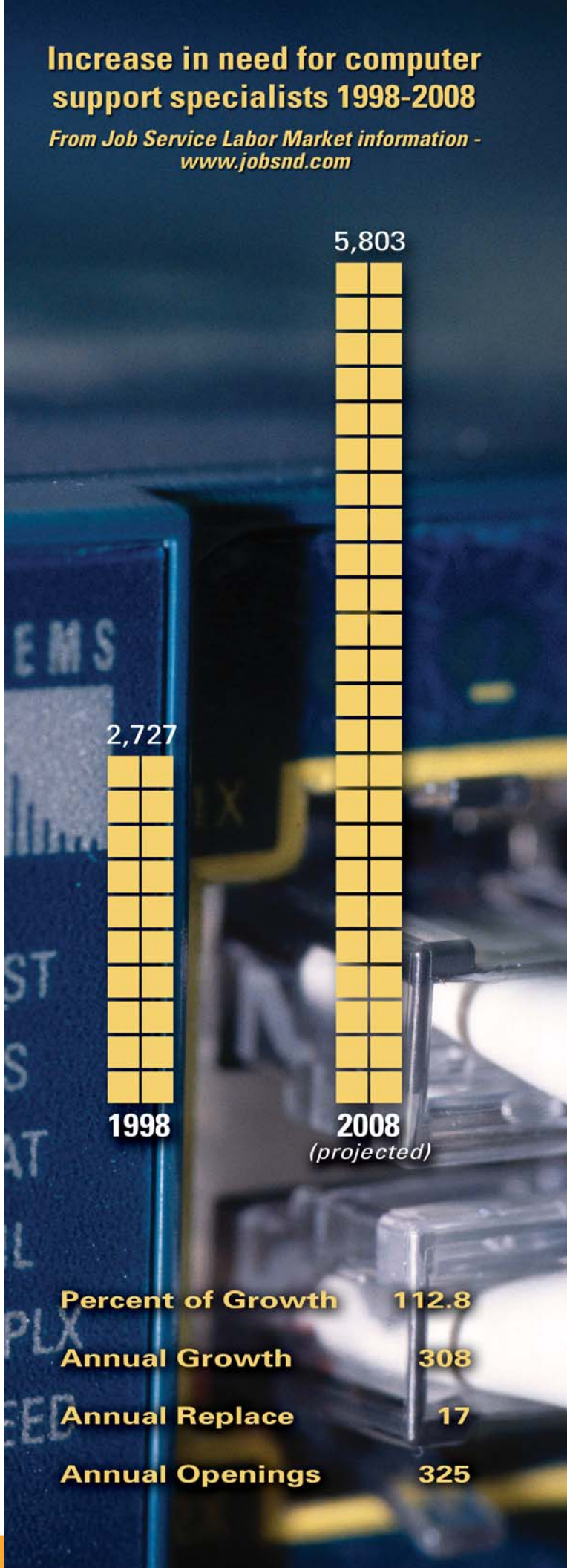
STRATEGIES

- Develop contingency plans for the effective continuation of services in the event of a disaster.
- Plan for the obsolescence of existing systems.
- Retain and train technology staff and knowledgeable workers.

In 1997 Grand Forks, North Dakota, experienced a horrific natural disaster with a flood and a fire. On September 11, 2001, our country experienced a terrorist attack that made us reevaluate our priorities. These two examples show the importance of disaster planning and also demonstrate the vital role that communication technology can play in the recovery period. Government businesses processes have become so dependent on technology that many of these processes would not function without access to the underlying systems and data. Arrest warrant systems, check writing systems, e-mail, telephone and Internet access are all examples of critical systems that are vital to ongoing operations. The state also has a major responsibility for coordinating a response in the event of a disaster. Proactive planning for catastrophic events is essential. This includes having systems in place to respond to a disaster, and restoring information quickly and efficiently.

Service may also be disrupted because of incompatible equipment and software, or the failure of hard-to-maintain, obsolete systems. Technology changes at a rapid rate and we need to plan for its obsolescence. Just as buildings and roads need to be maintained and replaced, so too the maintenance and replacement of technology investments needs to be planned and budgeted. The risk of postponing the replacement of obsolescent systems can be as disastrous as any other catastrophic event. Agencies have identified the replacement of critical systems in their technology plans and the state will need to prioritize the investment needed to replace these systems.

Maintaining the technology to support core government business processes also depends on having well-trained, experienced people. Workforce shortages in the area of technology continue to put pressure on the state to find and retain qualified staff. The state must continue to provide adequate training to update skills as technology changes. Having highly trained staff available to support and maintain the technology is a critical factor in minimizing service disruptions and down time.



GOAL THREE

Manage state government resources to enhance efficiency and improve service delivery.

STRATEGIES

- Provide modern, intergrated systems for managing financial and human resources in coordination with the North Dakota University System.
- Improve the efficiency of "back office" processes.
- Collaborate to improve the management of technology.

A culture of cooperation has been developed across state government to focus on joint initiatives and improve delivery of service. The most comprehensive technology project the state has ever undertaken, ConnectND is a replacement of North Dakota's aging administrative and student information systems. PeopleSoft's Enterprise Resource Planning (ERP) system has been chosen to replace the state's payroll, accounting, financial, student records and registration systems, some of which were first put into operation more than 20 years ago. By implementing a single statewide system across higher education and state government, we have a tremendous opportunity to do something that no other state has done. As part of the implementation, current processes and procedures will be optimized to implement the best practice solutions provided by the new software. The result will be more efficient and effective government.

The idea of making government more efficient through the use of document management is well known as the "paperless office" and "office automation." As the costs of the technologies involved have come down, the state has implemented Electronic Document Management System (EDMS) components on a centralized basis. By electronically imaging data, we can begin to minimize paper storage across the state, saving hundreds of thousands of dollars annually in storage costs. Electronic document management also improves customer service by giving employees instant access to a document via a computer rather than requiring a trip to some distant storage space. The Tax Department has aggressively pursued automation of paper handling and experienced significant savings. Other agencies are following suit. Additional capabilities to automate work flow and forms processing will be implemented to create efficiencies in document management for all agencies.

These kinds of shared initiatives have been identified through technology planning processes first mandated in 1997. Planning and project management have since improved, as agencies have put these processes into action. The state will continue to improve the management of technology by implementing a new process called Enterprise Architecture, which will drive continuous business and technology alignment in state government. Enterprise Architecture provides an overall plan for designing, implementing and maintaining the underlying infrastructure to support information sharing and resource optimization.

"By electronically imaging data, we can begin to minimize paper storage across the state, saving hundreds of thousands of dollars annually in storage costs. The Electronic Document Management System also improves customer service by giving employees instant access to a document via a computer rather than requiring a trip to some distant storage space."

GOAL FOUR

Collect and disseminate information to ensure an informed public, and informed decision making by the government employees, while maintaining the privacy and confidentiality of personal information where appropriate.

STRATEGIES

- Build a system for sharing Criminal Justice Information (CJIS) across political boundaries.
- Expand the use of the Geographic Information System (GIS) "hub" for sharing data.
- Create communication mechanisms to quickly inform the appropriate personnel of public health or safety threats.
- Identify information privacy requirements and plan for the effective resolution of privacy issues.
- Plan and implement security measures to protect information and other assets from unauthorized access.

Information is a significant asset and becomes even more valuable when it is easy to find and use. We must guard against its misuse by protecting data using strong privacy policies and security measures. Improving public safety through Criminal Justice Information Sharing(CJIS) will be accomplished by way of a plan developed under the direction of the Criminal Justice Information Sharing Board and Executive Committee. This effort involves not just state entities like the Courts, Attorney General's Office and Department of Corrections, but also local police, sheriffs and state's attorneys. From the time a crime occurs, until an arrest is made, and conviction and sentencing take place, many people in different organizations are involved. Having up-to-date, accurate information shared during the process is essential. An important component of the implementation plan is the creation of an information sharing hub to accomplish this objective.

The continued development of the Geographic Information System (GIS) hub will benefit North Dakota agencies, departments, institutions and the public by providing centralized storage of location-based information and making it accessible to agencies and to the public. Geographic information provided in the form of maps can provide data in a visual format that is easily understood. Maps of legislative and school boundaries plotted against demographic data, maps of changing water boundaries and flood plains provide more information in a single picture than pages of text can convey.

Technology plays a vital role in informing the appropriate personnel of public health or safety threats. One program launched to communicate health emergency information is the Health Alert Network, part of North Dakota Department of Health's bioterrorism readiness program. It was established under a cooperative agreement with the U.S. Centers for Disease Control and Prevention and serves as a communication network among state and local public health agencies, health care providers, hospitals and emergency management officials. Another program being implemented by January 1, 2003 is Amber Alert, a partnership between law enforcement agencies and broadcasters to send an emergency alert to the public when a child is abducted and believed to be in grave danger. As with other efforts, North Dakota excels in bringing people and ideas together for the best possible solution.

In a June 2002 survey, nearly two-thirds of North Dakota citizens expressed concern about privacy on the Internet. With the ability to easily collect and access information comes the responsibility for protecting the privacy of personal information and securing data from unauthorized uses. The public's need to know must be balanced with the rights of individuals for privacy. Initial policies have been developed for state agency practices based on principles of notice, choice, access and security. Additional study of state and federal legislation, including coordination of the Health Insurance Portability and Accountability Act compliance, will provide the background for planning next steps to address privacy issues. A comprehensive security framework will be developed to outline the roles and responsibilities of everyone involved in protecting information and technology assets, from the system administrator to the end user.

"From the time a crime occurs, until an arrest is made, and conviction and sentencing take place, many people in different organizations are involved. Having up-to-date, accurate information shared during the process is essential."

GOAL FIVE

Leverage state government spending to create viable economic development opportunities in North Dakota.

STRATEGIES

- Assist political subdivisions to find cost-effective, last-mile connectivity solutions in individual communities.
- Facilitate partnerships with private industry and non-profit organizations to encourage resource sharing.

By facilitating partnerships, state government is able to leverage spending and promote the adoption of cost effective technology solutions in North Dakota. Two ways to advance greater professional, economic and political change include finding connectivity solutions for individual communities, and facilitating partnerships with private industry and non-profit organizations. Last-mile connectivity costs remain a barrier to linking local government offices within a community. Technical support is needed to evaluate options and identify economical solutions for connecting multiple sites. The Information Technology Department has provided this support to a number of North Dakota communities, resulting in higher bandwidth connections at a lower cost. The continuation of this service is essential to leverage the benefits of the state network and find affordable options for more cities.

Ideally, private industry will provide direct delivery of telecommunications services to citizens and businesses. In North Dakota, lack of population density can make it difficult for private industry to justify significant investments. In these cases, state government can partner with commercial customers to create a higher level of demand. In other cases, the state can facilitate cooperative arrangements between commercial or non-profit entities. Rural health clinics provide an example of the need for cooperation. Competing hospitals have established separate, duplicate networks to deliver telemedicine services to remote clinics. In one case, video equipment and network connections from two hospitals sit at opposite ends of the same room in a rural clinic. The hospitals have asked the state to explore the creation of a single network with costs shared by the participating entities. In order to promote service delivery and economic viability in rural North Dakota, the state will continue to explore these kinds of strategic partnerships as they arise.

GOAL SIX

Build an affordable, shared infrastructure to deliver core services to North Dakota citizens.

STRATEGIES

- Manage network services to state government, education and political subdivisions to ensure availability at a reasonable cost.
- Provide centralized hosting of applications for political subdivisions.
- Upgrade the capabilities of the state radio network to incorporate digital technologies and maintain interoperability.

Aggregating the investment dollars from multiple entities is the only way a sparsely populated state like North Dakota can fund the robust infrastructure required for the new economy. Communication between state government, K-12 and higher education entities, and political subdivisions requires a single, secure, integrated wide area network that is properly managed, always available, and has the capacity to grow. North Dakota's network, called STAGEnet (Statewide Technology Access for Government and Education), provides high-speed broadband connections to 192 North Dakota communities and 202 schools for a total of 456 sites. The state's investment made it economically feasible for local telecommunications providers to upgrade their services in rural areas. These same providers can now offer expanded services like ATM and DSL to non-government entities as well. Because of the overwhelming success shown by STAGEnet, the state of North Dakota has learned how powerful an integrated network can be in providing a foundation for video capability and access to centrally hosted applications. As usage of the network continues to grow, it is important for the state to provide the security and reliability necessary for government and education while at the same time controlling cost. Maintaining and supporting this network infrastructure is essential as more and more government and education services depend on it to reduce distance barriers and reach out to rural areas of the state.

The connectivity provided by the state network has made it possible for the Information Technology Department (ITD) to offer additional services to local governments and K-12 school districts. ITD hosts a student information system, PowerSchool, on a centralized basis for schools throughout the state. Bismarck Public Schools piloted the system and over 60 additional districts plan to implement the software. The centralized hosting model has reduced licensing fees and eased the burden of technology support for the school district. Other education applications will be evaluated for centralized hosting as needed. The state plans to follow this successful model as a component of the Criminal Justice Information Sharing (CJIS) architecture as well.

The state radio network has provided the infrastructure for public safety communications for many years. Changes in technology and a mandate from the Federal Communications Commission now require a substantial statewide upgrade from analog to digital mode. Some local jurisdictions have already converted by establishing independent networks. It is imperative that the state act soon to maintain compatibility throughout the state. Because the cost of the upgrade will be considerable, State Radio plans to convert to digital using a phased approach as funding becomes available. Standards will be established so that equipment purchases by local entities will be compatible once the entire network is upgraded. A detailed plan will be developed and implemented that maintains existing interoperability and allows for a smooth transition.

"Communication between state government, K-12 and higher education entities, and political subdivisions requires a single, secure, integrated wide area network that is properly managed, always available, and has the capacity to grow."